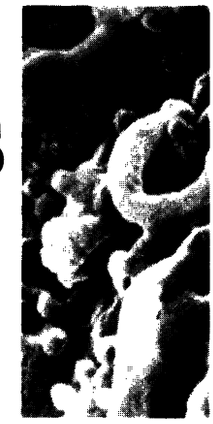
IMMUNOBIOLOGY AND PATHOGENESIS OF PERSISTENT VIRUS INFECTIONS



Edited by **Carlos Lopez, Ph.D.**
Lilly Research Laboratories, Indianapolis, Indiana

Chronic or persistent viral infections are among the leading causes of human suffering and mortality, and the viruses producing these conditions are the subjects of intensive and increasing study. This volume summarizes basic concepts essential for understanding the immunobiology and pathogenesis of persistent virus infections and then presents reviews of recent advances in this field, focusing on infections caused by the human immunodeficiency virus, Epstein-Barr virus, and arenaviruses. Strategies for continued research are also emphasized.

All of the contributors are distinguished scientists now working in basic and applied virology, immunology, and epidemiology. *Immunobiology and Pathogenesis of Persistent Virus Infections* will be especially valuable to scientists and students seeking an overview of this topic and insight into the pathogenetic mechanisms of less-well-understood viruses such as the human immunodeficiency virus. Researchers already concentrating on specific types of viral infections who wish to know more about other persistent viruses will also find this book useful, as will public health professionals dealing with chronic diseases.

Based on the First International Symposium on Immunobiology and Pathogenesis of Persistent Virus Infections, Atlanta, Ga., in April, 1987. To order, complete and return the form below.

CONDENSED CONTENTS

Hardcover (ISBN 1-55581-000-4)
Publication date: June, 1988.
Approximately 330 pages, illustrated, index.

Here is my order for IMMUNOBIOLOGY AND PATHOGENESIS OF PERSISTENT VIRUS INFECTIONS.

Check price		*Quantity*		*Total Cost*
☐ $35.00 (Member)	×	_____	=	$_____
☐ $55.00 (Nonmember)	×	_____	=	$_____

If ordering at the member price, give member number: _____.

Check payment method:

☐ Payment enclosed
☐ MasterCard
☐ VISA
☐ American Express

Card number _____
Expiration date _____
Signature _____

Ship to:

Name _____
Address _____
_____
City _____ State/Province _____
Zip/Postal code _____ Country _____

Send completed form to:

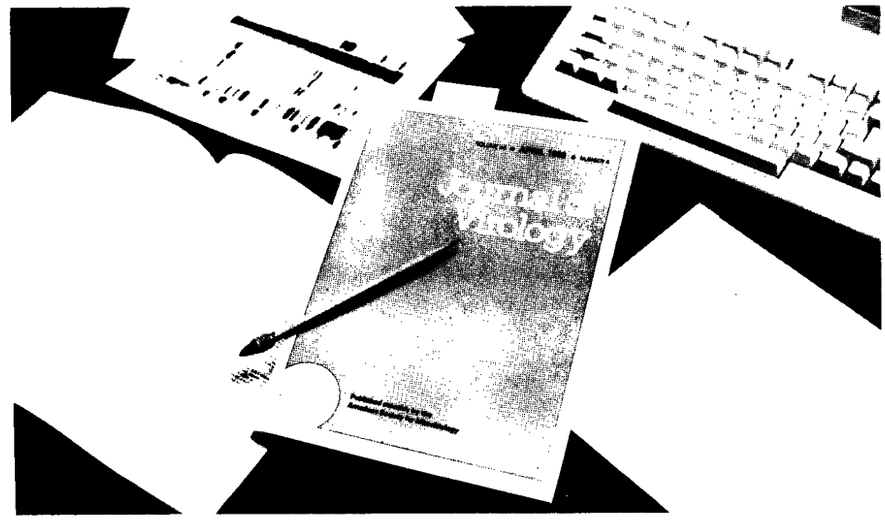
ASM American Society for Microbiology

Publication Sales
American Society for Microbiology
1913 I Street, N.W.
Washington, DC 20006

MR 6/88

Providing a firm foundation for virus research . . .

Journal of Virology



Leading the way in molecular and cellular biological research, the *Journal of Virology* publishes fundamental new information concerning the viruses of bacteria, plants, and animals. These reports of original research use the approaches of biochemistry, biophysics, cell biology, genetics, immunology, molecular biology, morphology, physiology, and pathogenesis and immunity. Going well beyond merely cataloging new data, the articles contain experimental observations that address a hypothesis, lead to new concepts, and indicate new directions in research.

The *Journal* specifically encourages publications demonstrating the nature of the relationships between viruses under study and their host cells or organisms. Journal sections include viral pathogenesis and immunity and virus-cell interactions, and highlight research at the cell biology-virology-organismic biology interface.

Because viruses serve as vital tools for studying life processes at the cellular and subcellular levels, molecular and cellular biologists, as well as virologists, should strongly consider a subscription to the *Journal of Virology*.

For immediate access to the most timely and important developments in virus research, complete the coupon below and return it to ASM.

Monthly, 4,400 pages. ISSN 0022-538X.

Please enter my subscription to *Journal of Virology*.

*Check price**	*No. of subscriptions†*	*Total cost*
☐ Member $41.00	_____	$_____
☐ Nonmember $350.00	_____	$_____
☐ Member (foreign) $63.00‡	_____	$_____
☐ Optional foreign airmail service (add $170.00 per applicable subscription)		$_____

☐ Payment enclosed
☐ MasterCard
☐ Visa
☐ American Express

Card number _____
Expiration date _____
Signature _____
Member number _____

Print mailing information below.

Name _____
Address _____
City _____
State/Province _____
Country _____ Zip/postal code _____

Send to: Finance Department
American Society for Microbiology
1913 I Street, N.W.
Washington, DC 20006

MR 6/88

* Prices subject to change without notice. All orders must be prepaid or charged to MasterCard, Visa, or American Express. Charge card orders may be placed by telephone (202-833-9680).
† Members limited to one personal subscription per journal at the member rate.
‡ All orders from outside the U.S. must be accompanied by payment in U.S. dollars, drawn on a bank within continental U.S., or charged to MasterCard, Visa, or American Express. ASM does not accept wire transfers.

ASM American Society for Microbiology

CUMITECH 7A

Laboratory Diagnosis of Lower Respiratory Tract Infections

By JOHN G. BARTLETT and a Subcommittee of the American College of Chest Physicians, KENNETH J. RYAN, THOMAS F. SMITH, and WALTER R. WILSON
Coordinating Editor, JOHN A. WASHINGTON II

Infections of the lower respiratory tract afflict some four to five million Americans annually; pneumonia is a frequent and often lethal infection. Yet there are few other infections so frustrating to the physician attempting to establish an etiologic diagnosis. In recent years, this challenge has become even more complex, with rapid changes in therapies, in diagnostic techniques, and even in the agents themselves.

A joint venture of the American College of Chest Physicians and the American Society for Microbiology, this *Cumitech* provides much-needed guidelines for determining the etiologic agents of lower respiratory tract infections. Both specimen collection and laboratory processing are covered in useful detail. Specimen types are extensively discussed, including collection techniques, indications and contraindications, complications, and points on interpretation. Microscopic examination of specimens is then detailed, with emphasis on staining, on mycobacteria, and on handling specimens from immunocompromised hosts. A final section presents processing and interpretation techniques for pathogen cultures, including basic and special procedures and specific sections on all of the major respiratory pathogens.

Physicians and other clinical workers, as well as clinical laboratory personnel, will value this latest *Cumitech*.

Cumitechs (*Cumulative Techniques and Procedures in Clinical Microbiology*) are consensus reports in pamphlet form on topics of special interest to the clinical microbiology laboratory. They represent expert opinion on optimal procedures for a variety of clinical microbiology techniques. Easily stored in the special binder available from ASM, *Cumitechs* are authoritative, brief, practical—and eminently useful in the clinical laboratory setting. The following *Cumitechs* are currently available:

*22. Immunoserology of Staphylococcal Disease
21. Laboratory Diagnosis of Viral Respiratory Disease
20. Therapeutic Drug Monitoring: Antimicrobial Agents
19. Laboratory Diagnosis of Chlamydial and Mycoplasmal Infections
18. Laboratory Diagnosis of Hepatitis Viruses
17. Laboratory Diagnosis of Female Genital Tract Infections
16. Laboratory Diagnosis of the Mycobacterioses
15. Laboratory Diagnosis of Viral Infections
14. Laboratory Diagnosis of Central Nervous System Infections
13. Laboratory Diagnosis of Ocular Infections
12. Laboratory Diagnosis of Bacterial Diarrhea
11. Practical Methods for Culture and Identification of Fungi in the Clinical Microbiology Laboratory
10. Laboratory Diagnosis of Upper Respiratory Tract Infections
9. Collection and Processing of Bacteriological Specimens
8. Detection of Microbial Antigens by Counterimmunoelectrophoresis
6. New Developments in Antimicrobial Agent Susceptibility Testing
5. Practical Anaerobic Bacteriology
4. Laboratory Diagnosis of Gonorrhea
3. Practical Quality Control Procedures for the Clinical Microbiology Laboratory
*2A. Laboratory Diagnosis of Urinary Tract Infections
1A. Blood Cultures II

*New for 1987.

ORDERING INFORMATION:

Publication date: September 1987.
Price: member, $6.00 each; nonmember, $7.00 each. Limit of three of one title at the member rate.
Quantity discounts: 11-50 of the same *Cumitech*, $5.00 each; 51-250, $3.50; 251-1,00, $2.50; 1,001 and over, $2.00. Payment must accompany all orders (member and nonmember) for single copies of *Cumitechs*. Prices are subject to change without notice.
Also available: Three-ring binder for ASM *Cumitechs*, $9.00.

American Society for Microbiology, Finance Department, 1913 I Street, N.W., Washington, DC 20006 USA ASM

The best way to stay up to date on events affecting microbiology is a subscription to . . .

ASM News

Published by the
American Society for Microbiology
Washington, DC

ASM News is an engaging and broadly appealing magazine that serves as a major source of news and analysis for anyone interested in microbiology.

In Every Issue of *ASM News*:

- **FORUM:** Opinions of leaders, policy makers, generalists, and specialists addressing topical issues.
- **CURRENT TOPICS:** Concise reports on science, biotechnology, clinical developments, public policy, and business trends.
- **ASM NEWS:** Information on conferences; activities of the regional branches of the Society; and the legislative-oversight, education and training, accreditation, and membership activities of ASM committees.
- **FEATURES:** Several articles per month offering in-depth discussions. Recent topics include: field testing of engineered organisms in the U.S. and abroad; AIDS vaccine, research strategies, and the public policy crisis; biodegradation of hazardous and toxic wastes; mapping the human genome; patents and regulations in biotechnology; the status and future of clinical microbiology; science education; and NIH grants.
- **DEPARTMENTS:** Regularly published sections: *Letters*, *Public Affairs Report*, *Book Reviews*, *Application Deadlines*, and *Employment*.

☐ **Yes,** I would like to receive *ASM News* at $19.00 per year. Subscription year begins 1 January.

☐ Payment enclosed.

Please charge to: ☐ MasterCard ☐ Visa

Card number | | | | | | | | | | | | | | | | |

Expires____ /____

Signature _____ Date _____

MR 6/88

Ship to (please print):

Name _____

Institution _____

Address _____

City _____ State/Province _____

Zip/Postal Code _____ Country _____

Please send your completed form to:
American Society for Microbiology,
Publication Sales, 1913 Eye Street, N.W., Washington, D.C. 20006

ASM

New and Essential Titles

Clostridium difficile
Its Role in Intestinal Disease
edited by
Rial D. Rolfe and Sydney M. Finegold

Despite the tremendous progress made in recent years in understanding the pathogenesis, epidemiology, diagnosis, and treatment of *Clostridium difficile*-associated intestinal disease, many extremely important and fundamental questions remain to be answered. The objectives of this book are to summarize the available information regarding *Clostridium difficile* and its role in intestinal disease and to serve as a basis for future investigations in this challenging area.

1988, 424 pages, $89.00
ISBN: 0-12-593410-6

Advances in Microbial Physiology
Volume 29
edited by
A.H. Rose and D.W. Tempest

From the Reviews of Previous Volumes:

"This series has consistently presented a well-balanced account of progress in microbial physiology.... the series is invaluable for teaching purposes."
—AMERICAN SCIENTIST

CONTENTS: Hydrogen Metabolism in *Rhizobium:* Energetics, Regulation, Enzymology, and Genetics. Physiology and Biochemistry of Pili. Carboxysomes and Ribulose Bisphosphate Carboxylase/Oxygenase. Archaebacteria: The Comparative Enzymology of Their Central Metabolic Pathways. Physiology of Lipoteichoic Acids in Bacteria.

1988, 312 pages, $86.00
ISBN: 0-12-027729-8

Microbial Lipids
Volume 1
edited by
Colin Ratledge and S.G. Wilkinson

Together with the forthcoming Volume 2, this research-level book will comprise the only comprehensive detailed reference on microbial lipids, and has been long awaited by the microbiology/biochemistry community. The contents consider viral, yeast, fungal, algal, and protozoal lipids as well as those of bacteria.

June 1988, c. 880 pages
$200.00 (tentative)
ISBN: 0-12-582304-5

Genetic Engineering
Volume 7
edited by
Peter Rigby

From the Reviews of Previous Volumes:

"...well written and certainly worth reading.... the series should quickly build into a useful reference work on recombinant DNA technology."
—NATURE

CONTENTS: The Molecular Biology of the *Kinetoplastidae.* The Cloning of Antigen Genes from Malarial Parasites and *Leishmania* species. The Production of Foreign Proteins in Mammalian Cells.

In Paperback: $24.95 (tentative)
ISBN: 0-12-270307-3
May 1988, 136 pages

Frontiers of Antibiotic Research
edited by
Hamao Umezawa

Proceedings of the Takeda Science Foundation Symposium held in Kyoto, Japan, November 25–27, 1986

1987, 380 pages, $65.00
ISBN: 0-12-708370-7

Bacterial Energy Transduction
edited by
Christopher Anthony

This is the first book on microbial energetics at this level, presenting an integrated approach to all major aspects of the subject. It is a research level introduction to bacterial bioenergetics, aimed at postgraduates coming to the field and other researchers wishing to acquire specialist knowledge. Each chapter covers the basics of the relevant topic leading to more extensive discussion relating to specialist research interests. Energy transduction is fundamental to all biochemical/physiological processes and therefore of interest to many.

July 1988, 400 pages
$92.00 (tentative)
IBSN: 0-12-058815-3

ACADEMIC PRESS
Harcourt Brace Jovanovich, Publishers
Book Marketing Dept., 1250 Sixth Ave., San Diego, CA 92101
Call Toll Free 1-800-321-5068

Prices subject to change without notice. ES/SJ—13078